

THE CANADIAN MEDICAL ASSOCIATION

BRIEF

TO THE

HOUSE OF COMMONS LEGISLATIVE COMMITTEE ON BILL-74
(The Canadian Environmental Protection Act)

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For further information:

Dr. Normand Da Sylva
Mr. Lucian Blair
(613) 731-9331

INTRODUCTION

The Canadian Medical Association, a voluntary organization representing 85% of Canada's physicians, is pleased to present its views on Bill C-74 (Canadian Environmental Protection Act) to the members of the Committee studying Bill C-74, An Act respecting the protection of the environment and human life and health.

Through the work of its councils and committees, particularly the Council on Health Care's subcommittee on environmental and occupational health, the CMA has long expressed a concern for the "health" of the environment in which Canadians live and has made numerous suggestions as to how the quality of that environment could be enhanced and improved.

For the information of the members of the House Committee, we have appended to our comments on C-74 copies of specific areas of past proceedings of CMA General Council which deal with environmental issues - from lead content in gasoline to management of hazardous wastes to water pollution. We trust these resolutions and statements of policy will be of use to Committee members in their deliberations.

BILL C-74 IN GENERAL

While we have some concerns about the present bill, we feel that the consultative process is moving in the right direction and we congratulate the Government of Canada on responding to several areas of specific concern (e.g., inclusion of biotechnology, broadening of the definition of "environment", more effective delineation of boards of review and at least a stated commitment and some funds to improve Environment Canada's enforcement record).

We would like to take this opportunity to make some broad comments concerning the legislation and the way in which it interrelates with other government functions.

In the recently-released report of the World Commission on Environment and Development entitled "Our Common Future", the commission outlines its concerns regarding the inadequacy of the present position of the Department of Environment in the development of national goals and purposes. The Report's Executive Summary specifically states:

"The existence of such agencies, i.e. departments of Environment gave many governments and their citizens the false impression that these bodies were by themselves able to protect and enhance the environmental resource base" ...

"The present challenge is to give the central economic and sectoral ministries the responsibility for the quality of those parts of the human environment affected by their decisions and to give the environmental agencies more power to cope with the effects of unsustainable development."

We are therefore disappointed that the stated objective of C-74 is to "fill the gaps" rather than to take more forthright responsibility for protecting the environment from the policies and activities of all other agencies and sectors.

We take specific exception to Section 37(3), which in essence removes pesticides, food and drugs and radioactive material, among others, from the responsibility of the department. In its policies regarding pesticides the CMA has made clear its concerns about the inadequacy of a proponent department (Agriculture Canada) having sole regulatory control over substances of major environmental significance. The mandate of a developmentally-oriented department is often narrow and so the costs of environmental degradation are not factored into its policies.

These costs are nonetheless real and must be borne by society. The medical profession will be required to deal with these human and financial burdens; it is for this reason that the CMA urges preventative action through a department clearly mandated to protect the environment, rather than the profits of a particular economic sector. Strengthening Environment Canada is an important step in that direction.

We are also concerned with the way in which Environment Canada appears to see the Act in relation to provincial jurisdictions. Concerns about consultation are laudable but they can go too far and compromise the primary responsibility of the department.

For example, we take specific exception to Section 38(2): the rather cumbersome process envisioned is analogous to telling a physician he can't institute cardiopulmonary resuscitation unless he has had a prior consultation. We must keep in mind that these provisions cover a gathering of evidence, as well as the actual cessation of harm in an emergency situation. It would make more sense to facilitate immediate action with secondary consultation as appropriate.

We would, however, support Section 37(4)(c) and commend the government for taking seriously its responsibility for the environment of all Canadians. If the federal government gives way to the provinces in setting specific environmental standards, it is quite conceivable that large corporations could play one province off against the other in order to get what they consider to be "relief" from environmental regulations which may imply an immediate cost to them. This type of problem exists on an international scale with respect to the growth of border industries on the Mexican side of the U.S.-Mexican border (e.g., asbestos).

Again, the undue costs of unnecessary environment degradation will be borne by the provinces affected and will be reflected in their health care costs.

SPECIFIC AREAS OF CONCERN

Definitions

The text of Bill C-74 defines "ambient air" as the atmosphere surrounding the earth but does not include the atmosphere within a

structure or within any underground space. In the absence of a separate definition of "air", it would seem the Act could be interpreted as excluding the atmosphere within a structure or within an underground space and would therefore exclude what amounts to most workplaces in Canada thus creating a huge gap in the area of occupational health. It may also be inconsistent with current efforts to eliminate tobacco smoke in public buildings.

Section 14

This section addresses the controversial subject of disclosure and should be very strongly worded. The opening paragraph should read:

... either Minister may require (a) the collection of data etc.

Section 18

From the perspective of the Act one needs to know what is in a given material, not how it is compounded. For most materials, analytical technology can provide information on the former point. As for the latter, how a material is put together is a legitimate trade secret about which information is not required.

There is, however, no good reason why a manufacturer should not provide information on the contents of a material thus sparing the taxpayer the sometimes considerable cost of analysis. The wording in these sections should be strengthened.

Sections 28 and 33

In the section that covers the establishment of the Domestic Substances List, the CMA feels that the use of mass as a basis for screening substances for addition to the list is inappropriate.

As physicians, we are well aware that minute amounts of some substances are immeasurably more toxic than large amounts of other substances. It would, therefore, seem more appropriate to use a measure of toxicity (such as the LD50, if that is known) or some other measure of presumptive toxicity and/or potential for contamination. If numbers are going to be written into legislation they should be appropriate to the use to which they are put and defensible by some scientific evidence. These sections seem to favour administrative convenience at the expense of scientific rationale.

Section 32(2)(b)

This provision is contrary to the traditional medical dictum of "first do no harm".

The most likely cause of delay on the part of the department will be administrative inefficiency or extra concern regarding the substance in question. It would therefore be much more appropriate to create a system that would keep the potentially-offending substance out until a decision was actually made. As physicians, we shudder at the thought that such a system could prevail for the marketing of pharmaceutical products: that is, the manufacturer would be allowed to sell a product unless the Health Protection Branch objected within a stated period of time following application.

The provisions for review panels are reasonable, but there appears to be no procedure for dealing with an "applicant" who refuses to divulge information when required to do so by a review panel.

Section 32(4)

Again this provision contains a sunset clause that is written in the wrong direction. Some stimulus for administrative efficiency, other than jeopardizing public health, should be provided.

Section 37(1)

Some of the subsections could conflict with established provincial regulations. The chance of creating federal-provincial conflict should, if possible, be avoided by more precise wording.

Sections 44 and 45

The CMA has previously expressed its views regarding the international transportation of toxic substances and supports the concern demonstrated in these sections for this type of transport.

We would like to suggest, however, that the development of Schedule II be clarified and that priority be given to the evolution of its regulations. For example, it would seem reasonable to immediately place all substances listed in Schedule I under Schedule II to demonstrate that our concern for others is no less than our concern for ourselves.

Compliance and enforcement are very important if this section of the Act is to have any effect. We are, by definition, exporting the potential for adverse health and environmental effects. Since there is no international feedback mechanism to ensure that failure of compliance will be recognized, the Act and regulations should reflect a strong commitment to enforcement of this section. The blank page representing Schedule II is not reassuring as regards the priority that Environment Canada places on this issue.

Section 88

In keeping with CMA policy, which supports public involvement in the decision-making process, we suggest this section be reworded to ensure that the Ministry and/or Review Board be required to state why a review report should not be made public, that this be a decided exception, and that an appeal process be included within this section of the Act.

Section 91, 1(a), 1(b)

In the current text the definitions of an inspector and of an analyst are so broad that virtually anyone could be designated as such. We propose that qualifications be included or identified appropriately.

Section 114

The determination of responsibility can be a difficult question: it is unclear whether the purpose of this section is to confirm the master-servant relationship. Inclusion of the word "agent" spreads the responsibility very widely in an organization although this may not be the intent of the legislation.

Natural Detoxification Systems

An act aimed at respecting and protecting the environment and human life and health should include some provision for the protection of areas that provide a natural mechanism for detoxification (e.g., the effect of bogs in extracting heavy metal from surface and ground water). Given the broad definition of "environment" in the Act, it would be appropriate to identify and protect such ecosystems for the future.

Schedule III

In a legal document such as this it would be useful to include a definition of "high-level" radioactive waste and "high-level" radioactive matter. The Atomic Energy Control Board would be able to provide definitions to the Committee.

APPENDICES

CMA Statements and Resolutions on various environmental issues:

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A. MANAGEMENT OF HAZARDOUS WASTES

(1982)

Inadequate practices in the management of hazardous wastes can cause health problems: directly in the case of ignitable, corrosive or explosive substances; indirectly in the case of toxic substances that may migrate into drinking water or be taken into the food chain by plants or fish. The prevention of such problems requires the legislation, administration, regulation and enforcement of standards and procedures for the treating, transporting, storing and/or disposing of the following:

- 1) hazardous substances that have already accumulated, including materials the further production of which is now banned or restricted;
- 2) hazardous substances that are now being produced and will continue to be produced as residues of industrial processes and from municipal and domestic wastes;
- 3) hazardous substances that may result from processes not yet in production. In this case, where such processes require licensing, the granting of such a licence should be contingent on evidence that the production of a hazardous waste is unavoidable, that the amount and type produced has been controlled and reduced as much as possible, and that the management of that waste is adequate and will be the responsibility of the producer.

At present there is federal legislation on the transportation, storage and disposal, including discharge into land, water and air, of those wastes under federal jurisdiction: that is, those produced by federal activities, present on federal lands, or subject to interprovincial or international transportation.

At the provincial level there is considerable disparity. As of October 1981, all provinces had legislation as to disposal into land, water and air. However, only six had legislation as to storage and handling and only two as to transportation. (Transport Canada will publish its Transportation of Dangerous Goods Regulations, for public comment, in Part I of the Canada Gazette in 1982; the date of publication will be announced in the Gazette.)

Resolution 82-31 (1982)

That the Department of the Environment, the Department of National Health and Welfare and the Department of Transport of the federal Government continue to extend their advisory and coordinating roles with the provinces in managing hazardous wastes; and establish standards, criteria and regulations that will be mutually

- acceptable to the provinces and uniformly applicable. (Carried)

Resolution 82-32 (1982)

That the provincial divisions of the CMA recommend to their respective legislatures that they enact appropriate regulations for the management of hazardous wastes, in coordination with the other provinces and the federal government. (Carried).

Resolution 82-33 (1982)

That the appropriate departments of both federal and provincial governments move to reduce future accumulations of hazardous wastes by:

- a) implementing policies that will result in the development of technologies that are not so dependent on potentially hazardous chemicals;*
- b) developing policies that will require chemical manufacturers and users to be responsible for the ultimate disposal of all chemicals; and will prohibit the manufacture or sale of potentially hazardous chemicals that cannot be recycled or disposed of harmlessly;*
- c) founding centre(s) of training that will further the science and practice of effective management of hazardous wastes.*
(Carried)

STATEMENT ON HEALTH CONCERNS RELATED TO THE MANAGEMENT OF HAZARDOUS WASTES IN CANADA (1984)

The adequate management of hazardous waste products represents perhaps one of the major challenges in the areas of environmental regulation. To impose on future generations risks that we do not accept ourselves is a medically unacceptable separation of risks and benefits. This is in large measure due to the fact that adverse health effects can be expected as an inevitable consequence of inadequate waste management practices.

The CMA is keeping a watching brief on developments in this area and although commendable progress has been made, the major portion of the task remains to be accomplished. The task can only be accomplished through diligent and cooperative efforts on the part of all parties concerned - the three levels of government, industry, academia and, most particularly the public.

The CMA proposes the following practices to be followed:

- The management of liquid and solid wastes involves national and interprovincial as well as local concerns. Consequently, there should be a process by which federal, provincial and local representatives review and agree on the systems introduced for the handling of such wastes. There is a need, for example, for special national programs designed for the acceptance, storage and disposal of particular wastes, i.e. radioactive or toxic chemicals. The location and operation of these sites should involve federal - provincial - local participation and cooperation, as should the development of appropriate siting criteria.

(iii)

- Where on-site disposal is not possible, the system developed for waste disposal should include, inter alia, provisions for the designation, collection, transportation, handling, storage, use and safe disposal of hazardous wastes.
- The system should include measures for dealing with emergency or special situations that may arise, particularly those in which health risks are present.
- Health professionals should be involved in the assessment of health risks to the community and to individuals as a result of the disposal of toxic wastes.
- The system should stipulate maximum acceptable levels of specific contaminants, based on a scientific assessment of the health risks that they pose.
- The system should provide for an adequately funded, independent monitoring of the system for health protection, as well as for other reasons.
- The system should require that the industry or agency that produced the waste be responsible for the cost of the control system. In this regard, an assessment system based on the hazardous nature, volume and expected costs of control should be used to determine an amount to be paid by the industry or agency. These funds should be publicly administered.
- The system should provide for the allocation of some of the funds collected from the responsible industries and agencies for research purposes. Research funding should be provided for projects dealing with the determination of health effects and, the identification of control measures to protect human health, as well as projects investigating possible constructive uses of what is presently regarded as hazardous.
- The system should also include provision of funds for emergencies arising from the transportation, storage and disposal of hazardous wastes. These emergency funds should be used not only for the costs involved in cleaning up and compensating for property damages, but also to investigate health concerns and to provide compensation for damages to health.
- Provision should be made for informing the public and involving it in decisions concerning standards, criteria and site selection for hazardous wastes.

STATEMENT OF PRINCIPLE REGARDING THE MANAGEMENT OF HAZARDOUS WASTES
(1984)

- The primary goal of any system shall be the establishment of procedures whereby any waste products that cannot be detoxified or re-used in some acceptable way must be effectively isolated from the environment now and in the future.

In order to minimize the volume of wastes falling into the category described above, the provision of effective patterns of management of waste products must become an integral part of the licensing process for any product or procedure proposed for use and should involve on-site detoxification and management.

In order to maximize the effectiveness and acceptance of the waste management process, the public must have an effective voice and access to all information on an ongoing basis.

The system must be designed in such a way as to permit enforcement of total compliance to avoid any disposal of hazardous waste outside the controlled system.

STATEMENT ON RADIATION PROTECTION (1982)

The Canadian Medical Association is aware of the potential health hazards associated with exposure to ionizing radiation and has examined the possibility that detrimental effects might result from the long term exposure of the general population to low-level radiation as a result of nuclear energy production.

The Association is satisfied that, where internationally recommended criteria for radiological protection have been adopted and effectively implemented, there is at present no conclusive evidence of a measurable increase, in the long or short term, of adverse health effects due specifically to radiation in populations thus exposed.

The Association recognizes the need for ongoing support of research related to the health aspects of nuclear power generation, and to the management of radioactive wastes in general, the management of wastes from uranium mines in particular; and the need for the epidemiological surveillance of exposed populations.

C. STATEMENT ON LEAD IN THE ENVIRONMENT (1985)

During the year, CMA responded to an invitation by the Royal Society of Canada to participate in a study on the presence of lead in the environment. After endorsement by the Board of Directors, the following Statment was forwarded to the Royal Society of Canada as the Association's preliminary position:

1. (a) The sources of lead releases in Canada and their relative contributions

Automotive exhausts are an important and universal source. Although lead is more concentrated in urban areas, virtually every Canadian has some exposure.

Smelters and lead-using industries (i.e. manufacturing of automobile batteries) cause high local concentrations of exposure and consitute a potential hazard for workers; care must also be exerted to avoid workers carrying lead home on their clothing. Hobbyists engaged in making stained glass windows may be at risk.

Lead-containing paint has been eliminated from children's toys, and is no longer frequently found in houses with the possible exception of some older dwellings.

Lead water pipes have largely been eliminated from Canadian houses.

Discarded objects containing lead, such as automobile batteries, may still be found in some dumps.

(b) The pathways by which lead enters the Canadian environment and the means and media by which lead is transported within the environment and to humans.

Direct exposure, except in the vicinity of a smelter, is no longer the problem it used to be.

Automobile exhausts are not a major direct-exposure factor: little of the lead emitted in droplets is absorbed into the body. The problem is one of indirect exposure: the lead emitted precipitates out into dust and into the surface layers of the soil, where it is significantly persistent (it does not, for example, readily leach down into deeper layers). Children, therefore, playing in dust or soil and then putting their hands into their mouths, are at particular risk.

To the extent that lead may still occasionally be found in discarded objects or in paint, pica among children remains a concern.

(c) The toxicity of lead.

Lead poisoning, and the particular susceptibility of children to it, have been so abundantly documented over such a long period of medical history that the evidence is incontrovertible. The neurotoxic effects are of especial concern.

Unlike calcium, copper, iron, magnesium or zinc, lead has never been shown to have beneficial effects within the human body, even in the smallest amounts.

Arguments persist as to the threshold blood-levels of lead at which clinical signs and symptoms will appear, or at which long-term neurologic or hematologic effects become a risk. It is our view that: since lead is a toxic, non-beneficial substance; since late effects may not be clearly predictable; and, since human beings are currently exposed to such a variety of pollutants, many of which cannot as easily be eliminated or diminished, lead exposure should be reduced as much as possible.

(d) The potential or actual exposure of, and risks to, human and environmental targets in Canada.

If the use of lead-containing gasoline is not curtailed in Canada; if we continue to allow a higher lead content than does the United States; and if as a result the production and importation of automobiles using lead-containing gasoline increases, the potential risks to Canadians (and especially to Canadian children) will significantly increase.

The fundamental problem is that of cumulative deposition of lead in dust and soil, and its persistence therein.

2. (a) Practical corrective measures.

Lead should ultimately be eliminated from gasoline.

At the present time, the Canadian standard should be set no higher than that of the United States Environmental Protection Agency: 0.286 grams per litre.

The reason that lead-free gasoline was introduced in the first place was to avoid the impairment of the effectiveness of anti-pollution devices applied to automobile exhaust systems. Human health and the environment will therefore benefit from the reduction of other pollutants if lead is removed from gasoline.

- (b) The economic, technical, social and labour implications of reductions in lead releases and exposure from all sources, including the implications of eliminating lead in gasoline.

There is, of course, a cost factor in the reduction of the lead content of gasoline. Calculations made by major Canadian oil companies show that modest reductions can be achieved at modest cost; that the cost of attaining the 0.286 gm/litre standard is significant but not damaging; and that the cost escalates rapidly if one is to go beyond 0.286 gm/litre. It is on this basis, therefore, that the CMA has recommended matching the U.S. standard.

There are, to our knowledge, two plants in Canada making tetraethyl lead for gasoline. Some jobs (in the hundreds, not in the thousands) are undoubtedly at risk. Balancing the one human factor against the other, we are convinced that health, especially that of children, must take precedence."

Resolution 85-20 (1985)

Be it resolved that the CMA urge the federal government to limit lead additives immediately in gasoline to no more than 0.29 grams per litre, with the intention of progressively eliminating lead in gasoline.

Resolution 86-38 (1986)

That the Canadian Medical Association reaffirm its position that lead must ultimately be eliminated from gasoline, and

That the CMA recommend to the Government of Canada that the maximum standard for the lead content in gasoline be reduced to 0.026 g/l by January 1, 1990.

Resolution 86-39 (1986)

That the CMA encourage the federal and provincial governments to adjust immediately the federal and provincial gasoline taxes such as there is a deterrent to the continued use of leaded gasoline.

D. STATEMENT ON WATER POLLUTION (1984)

The CMA has reviewed some of the data available on water pollution in the Niagara River/Lake Ontario/Saint Lawrence River continuum. While our review has not revealed conclusive evidence of a clear and imminent danger to human health from current municipal drinking sources, we must keep in mind the context in which this statement is made.

Whereas there is a significant amount of ongoing monitoring of the municipal water sources and water-related food chain this cannot be completed given the thousands of possible chemical contaminants and the hundreds of new ones introduced each year. In addition, there is a paucity of data on the interactions among the various chemicals. Indeed there is no reason for complacency and every reason to take urgent action to reduce our level of ignorance in this area, to intensify monitoring of the effects on human health and to stop the progressive contamination of the water with new chemicals.

Therefore the CMA would encourage appropriate research in these fields, and will strive to ensure adequate medical input into such studies.

The CMA will continue its efforts to ensure that practising physicians and physicians-in-training are informed of and alerted to problems in these areas.

The CMA will encourage research into the development of more sophisticated systems of drinking water purification while at the same time recognizing that even more research and action must be taken to ensure better control of ongoing contamination (e.g. controlling of dredging of significantly contaminated lake and river beds, better control procedures for new chemicals, etc).

In an immediate, practical sense, the CMA expresses its support for the ongoing work of the International Joint Commission regarding the water quality of the international water systems and assures the IJC of its continuing cooperation and availability.

E. PESTICIDES AND HERBICIDES (1985)

In discussing the health effects of herbicides and pesticides, CMA is concerned about the inadequacy of the current methods of reporting birth defects. CMA feels that this is a very important issue and suggested that a national registry for monitoring birth defects be established to act as a clearinghouse. If such a registry were established, reproductive outcomes related to herbicides and pesticides could more easily be detected.

The CMA also supports the recommendations proposed in the Salter Report "Consultation on the Assessment and Registration of Pesticides" with respect to the establishment of a pest management board.

These proposals were the result of a study aimed at establishing a consultative process to accompany the assessment and registration of pesticides. The study was under the chairmanship of Professor Liora Salter, Associate Professor, Department of Communications at Simon Fraser University. A number of senior officials from the federal departments involved in the assessment and registration of pesticides were consulted. All the provinces were invited to comment on the preliminary report and a number of scientists, experts and consultative committees were interviewed.

Although the CMA agrees with some of the recommendations of the report, we feel that the proposed board's mandate should include broader issues such as the review of registration and transportation and the development and application of control strategies.

Resolution 85-22 (1985)

That the CMA encourage and support the establishment of a pest management advisory board, as recommended in the final report entitled "Consultation on the Assessment and Registration of Pesticides", and

That the board's membership include representation from the departments of National Health and Welfare, Agriculture and Environment as well as from the scientific community and the lay public, and

That the board's terms of reference include:

- A) the establishment of effective coordination and free flow of information between the various participants in the regulation and application of pest control strategies (federal, provincial, producers, farmers, etc).

(xi)

- B) the establishment of reproductive outcome registries as may be appropriate in assessing the safety of pest control strategies. (This would require the delineation of "groups-at-risk" as these may vary from region to region), and
- C) the encouragement and coordination of research and development of scientifically valid techniques of community health monitoring to detect the impact of pest control strategies, and
- D) an ongoing and detailed consideration of alternatives to pesticides ensuring the establishment of integrated pest management strategies whenever possible.

Resolution 85-23 (1985)

Be it resolved that all government agencies possessing information on pesticide and herbicide toxicity and efficacy should be required to make this information available on request to the public.

Resolution 85-24 (1985)

Be it resolved that a tripartite committee be established for the registration of pesticides and herbicides consisting of representatives from Agriculture Canada, Environment Canada and Health and Welfare Canada.

Resolution 85-25 (1985)

That the CMA encourage the federal Minister of the Environment to proceed with urgency on discussions with his provincial counterparts towards establishing an effective national and/or regional plan for toxic waste management in Canada.

F. SICK BUILDING SYNDROME (1987)

In examining this issue the Subcommittee reviewed a draft document entitled "Sick Building Syndrome", published by the Canadian Centre for Occupational Health and Safety, on which CMA's comment had been requested. This syndrome seems to be a relatively recent phenomenon, or at least is recognized as such, since there has been very little in the medical literature about it. Accordingly, the Subcommittee felt that this disorder merits further study, including sound epidemiologic analysis. As well, the Subcommittee supports the development of a protocol to examine various aspects of "sick building syndrome". This should include environmental assessments of working conditions and a categorization of symptom patterns that would help physicians manage patients with this problem.

Other health professionals, as well as architects, building engineers, heating and ventilation specialists, ergonomists and social scientists, will have to be consulted when such a protocol is developed.

Whereas the varied symptomatology that has come to be grouped under the designation of "Sick Building Syndrome" is increasingly a presenting reality in the clinical experience of Canadian physicians.

Resolution 87-54 (1987)

That the Canadian Medical Association recommend to the federal government the creation of a task force to study the phenomenon known as "sick building syndrome", with appropriate input from concerned professions, to:

- A) *study and evaluate indoor working and living environments with a view to identifying possible etiologic factors;*
- B) *determine cause-and-effect relationships, if any, between such possible etiologic factors and presenting symptomatology;*
- C) *develop protocols of investigation, monitoring, regulation and research, and*
- D) *recommend improvements on the basis of available scientific knowledge.*

G. ENVIRONMENTAL PROTECTION ACT (1987)

The CMA reviewed numerous documents published by Environment Canada, including the proposed Environmental Protection Act and feels that the definition of substance may not adequately encompass the concept of biotechnology and its products. Biotechnology is perceived as a hazard to the environment and should be covered in more detail.

In a document entitled "Consultations on the Proposed Environmental Protection Act", Environment Canada proposes a number of issues could be addressed, such as the question of biotechnology, and asks:

"Should the products and processes of biotechnology be managed from "cradle to grave" in the same manner as proposed for toxic chemicals?"

"Are the definitions of 'substance' and the regulatory framework in the proposed Environmental Protection Act broad enough to cover living organisms and their constituents?"

Resolution 87-53

That the CMA urge the Government of Canada to include in the proposed Environmental Protection Act the concepts:

- 1) that biotechnology be managed from "cradle to grave" in the same manner as proposed for toxic chemicals, and*
- 2) that the definition of "substance" and the regulatory framework in the proposed Environmental Act be broadened to cover living organisms and their constituents.*